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ABSTRACT

English nominalizations turn verbs and adjectives into nouns systematically, but their meanings can change unpredictably. In the United States, college composition handbooks urge students to avoid using nominalizations, but elsewhere secondary students learn to write them responsibly and to recognize being manipulated when reading them. Nominalizations abound in business, science, and humanities and in textbooks and handbooks because they organize, generalize, classify, shorten explanations, maintain group identity, and display unchallengeable authority. They develop and build on previous knowledge, yet their assumptions increase comprehension difficulties. Furthermore, they can hide relevant information harmful to the writer's position. They contribute to coherence and lexical density but present special problems for second language learners. Tabulations of nearly 2,400 nominalizations in five morphological patterns show varying proportions in the opening paragraphs of 216 articles in a wide range of current periodicals as well as in compositions by first-year students in a community college. The use of nominalizations raises questions for education, for government publications, and also for some forward-looking scientists. (Contains a table of data and 18 references.) (Author/NKA)

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English Nominalization Paradoxes

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English Nominalization Paradoxes

English nominalizations turn verbs and adjectives into nouns systematically, but their meanings can change unpredictably. In the United States, college composition handbooks urge students to avoid using nominalizations, but elsewhere secondary students elsewhere learn to write them responsibly and to recognize being manipulated when reading them. Nominalizations abound in business, science, and humanities and in textbooks and handbooks because they organize, generalize, classify, shorten explanations, maintain group identity, and display unchallengeable authority. They develop and build on previous knowledge, yet their assumptions increase comprehension difficulties. Furthermore, they can hide relevant information harmful to the writer's position. They contribute to coherence and lexical density but present special problems for second language learners.

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English Nominalization Paradoxes

In June, 1998, Vice President Gore announced an executive order 'designed to help ordinary citizens and small businesses' (Gordon 1998:2). It requires, again, that new federal documents 'that explain how to get a benefit or service or how to comply with an agency requirement' must use plain English starting October 1. Plain English is described there as a style with second-person pronouns and short sentences, but without passive voice and without unnecessary technical terms.

What are unnecessary technical terms? Immediately after the directive was announced, journalists attempted humor with excessive nominalization. In their old college handbooks from freshman comp, nominalizations are discouraged because they are said to be 'difficult to understand ... [and] wordy ... [and they] hide both actor and action' (Lester 1991:153-4). Nominalizations were illustrated with examples of words made from verbs and adjectives. However, alert students can find more examples of nominalizations in the table of contents and body of the very same handbooks as well as in all their other textbooks.

What should students be taught about nominalizations? They foreground and develop results, qualities, and attributes. They take modifiers, although sometimes what the modifiers refer to is not clear. They classify and build on previous knowledge. Are they good or bad? Often misused and overused in our bureaucracy, they would not exist -- and indeed abound -- unless they also served useful purposes. I plan to outline their uses and effects after I classify them and tabulate their appearances in a wide variety of current periodicals -- newspapers and non-governmental technical and non-technical publications -- and student writing. I will conclude with their problems and the real paradox.

But first, consider endorsements by linguists. Longacre writes:

> It is essential that certain predications be nominalized or at least subordinated in some fashion and shoved to the side. They must not be permitted to impede the flow of discourse. Similarly ... it is often important that a sequence of predications be bundled into the same sentence and disposed of summarily without being given undue attention by development as separate sentences. Again, the flow of

> discourse would be impeded were we to do otherwise. Conversely, there are spots in a discourse where great poignancy is achieved by separate clauses and by separate sentences. (1983:327)

Furthermore, a report on teaching English to European researchers, where the policy is 'Publish in English or perish' recommends that students should practice nominalization instead of narrative.

> One cannot but agree with Kretzenbacker's [1990:140] ... suggestion that instead of practicing narrative skills in schools and universities students should practice nominalization processes, how to construct participial constructions, etc., and how to write effective abstracts and articles (Ventola 1994: 298).

MORPHOLOGICAL CLASSIFICATION

Nominalizations should not be confused with abstractions in general, although they are abstract. We can classify five types of nominalizations by their morphological changes.

1. In the simplest category, the one often most numerous, nouns and verbs are spelled alike. Lay purists complain about using nouns for verbs and verbs for nouns and decry new usages, such as the lunch / to lunch, without realizing that this expansion is a historical standard pattern in English from Anglo Saxon times (Halliday 1998: 199); Greek could transcategorize verbs and adjectives into nouns (Halliday and Martin 1993: 6-19). The lay purists are not able to tell whether a word like plan or talk is basically a noun or a verb, and they just do not know what they are talking about.

When some verbs (such as refuse and convert) become nouns, they change only the stress pattern. Because intonation cannot be distinguished in writing, these verbs are included in this category of verbs that are nouns without change. The test for this category is whether it can fit in the pattern of the.../to....

2. Next, adding -ing to a verb root can create a noun, the gerund. Halliday ranks gerunds between the verb and the full-scale nominalization (1998:200). Adjectives, present participles, and progressive verb forms ending in -ing are not included because they are not used as nouns. This category omits infinitives for three reasons: (1) They appear as two words. (2) Student

readers of handbooks would probably not include infinitives in the warnings. (3) Although infinitives can serve as nouns they seem to more often serve a descriptive purpose after a noun.

3. The most obvious nominalizations add suffixes to verbs or make small changes in the root. Typical of the verbs that change their root are sell/sale and sing/song. Actions are shown by suffixes such as -al (portrayal), -ance (attendance), -ion (corrosion), -ure (creature), -y (mastery), and some combinations, such as -ification (modification), and -ancy (urgency). Although -er can show an actor and *-ee* usually indicates a patient, readers cannot deduce meaning simply from the form, for laughter and prayer are products, not actors, and a committee is not necessarily a patient. Critics of nominalizations may narrow their objection to this category. Therefore these are the ones I will focus on. The tabulations separate the categories and report most completely on use of this single type.

4. The fourth category is nominalizations such as kindness and purity made from adjectives with suffixes such as -ness and -ity.

5. The last category includes nominalizations that change the meaning of words that are already nouns, such as friendship and patriotism. This category also holds compounds, such as birthday; they usually have at least one part that is already a noun or a nominalization from an adjective or a verb.

In classifying words, I tried to ignore distant etymologies because they are often false and because I wanted to classify words as they would be classified by an intelligent college student, one with a large vocabulary but no special knowledge of Latin or linguistics. I believe this approach would satisfy many authorities. As Skeat says, 'False etymologies have long lives, and die hard' (1912:29). Baugh questions the difference between compounds and suffixes (1957:220), and Matthews offers support with examples of the suffixes -ship from a root meaning 'to create or shape' and -dom from a root suggesting 'judgement or domain' (1979: 20). Bloomfield (1933: 240), Bolinger (1968:80), Jesperson (1969:59), and Mencken (1982:236) hold similar positions.

I did not count capitalized names, nor technical names of physical substances such as cyanide, although cyan does mean 'blue.' Chemical nomenclature has its own elaborate system, which differs from the common pattern.

I did include nominalizations serving as noun adjuncts in a sequence of nouns (such as government regulations). They can be distinguished from descriptive and evaluative epithets because they indicate a process, state, attribute, or relationship rather than a quality of the following noun. They were counted only when they clearly worked as nouns, not as adjectives. For example, in Flying shuttles are dangerous, flying describes the type of shuttles and is not counted, but Flying shuttles is dangerous means that the process of the flying of them is what is dangerous.

MATERIALS ANALYZED

Materials for analysis were chosen to reveal the effects of differences in audiences, subjects, purposes, and, perhaps, editorial practices. I analyzed the first paragraph in the articles on the first page of nine newspapers and the first paragraph of all the major articles in six professional journals, seven popular magazines, and fifteen student compositions. The table "Tabulations of Nominalizations in First Paragraphs" lists the sources of the total of 216 articles, along with their date in 1998, the price, and the number of articles there that meet the criteria for examination. (Excluded were editorials, book reviews, readers' comments, and picture essays without substantial text.)

Three successive issues of the New York Times were analyzed to examine their consistency; then they were averaged to parallel 28 articles from 6 other newspapers. All the newspapers bore a similar date except for the Times of London.

The weekly journal Science for members of the American Association for the Advancement of Science runs near 200 pages per issue. It has three different types of articles listed separately in the table of contents. In front are news stories accessible to all interested readers; 69% of their headlines use verbs. At the back are technical articles written for specialists in the particular field and seldom read by anyone else; all of their titles are entirely noun phrases except for two with past participles that could either imply a missing passive form or be interpreted descriptively. Between them in space, length, and size and specialization of audience is a short survey section titled 'Compass'; its articles are short, and their titles are all noun phrases without verbs, not even implied.

Other professional journals included are those of one national and one regional linguistics organization (Language and Southwest Journal of Linguistics) and three written for college composition specialists: one (Written Composition) is published independently (by Sage), one reports research of interest to members of the National Council of Teachers of English, and the other is the membership journal of the Council's Conference on College Composition and Communication.

The popular magazines include two on computers, one on popular mechanics, and one for members of the American Association of Retired Persons (AARP). Articles on computers are addressed to well informed lay readers in PC World, but to a less informed audience in Family PC. Popular Mechanics includes computers in its section on technology. Other sections are labeled 'Automotive,' 'Science,' 'Outdoors,' and 'Home Improvement' for interested but non-professional readers. Modern Maturity has reports on health, finance, and entertainment of interest to readers near or over age fifty.

Balancing the mainly male audience of Popular Mechanics are three magazines addressed to women. *Essence* addresses African American women interested in beauty, fashions, and health, along with books and travel. The same topics plus food are covered in You & Yours, which is published in London, and in WM, the Women's Magazine, which is published in Cardiff, Wales. Both are available free in the downtown mall and in a grocery supermarket in Cardiff, a university town that is the capital of the very poor country of Wales.

These three women's magazines relied heavily on beautiful photographs. For instance, 'Heat Chic' in Essence consisted of a three-sentence opening paragraph, a list of hints subtitled 'Your Mane Survival Guide,' and nine photographs of summer hairdos, each with two sentences of instructions. I could not use 'White' in that same issue because it consisted only of the title, a one-sentence lead, and brief captions of noun phrases for eight full-page color photographs of models dressed in white in beautiful settings.

The only unpublished articles tabulated are three each from five volunteer students in a first-year composition course in a community college in Texas. Their wide differences in age, race, and academic aptitude reflect the typical range there except for the top two percent. The five include one African American woman age 39, one Anglo man age 27, and one recent

immigrant from Viet Nam age 23, who all earned a grade of B in the course. The other two were younger Anglo women; one earned a C, but the other, who had a diagnosed learning disability, was the only student who completed the course without passing it. (Her nominalization resembled those of the other students.) They were chosen because they were the only students in two sections who gave permission for the same three assignments: a personal introduction on their accomplishments, an essay late in the semester, and a library research paper. These five do not include the rare but occasional mature A student who enters the course with a good command of nominalizations and most likely experience in business. Otherwise they illustrate the range of students addressed in the handbooks mentioned (although their particular classes did not use a standard handbook, but a functional one of my own design).

The tabulation table groups the publications by types and within each group lists them in descending order by price. The price seems to correlate very roughly with the reading level of the publication, which in turn may correlate with the educational and socioeconomic level of the readers.

RESULTS

The 847 sentences in the 216 opening paragraphs contained 1,468 finite verbs and 2,384 nominalizations. Seventy percent of the nominalizations were either forms identical with verbs (a total of 890) or nominalizations that changed a verb either internally or with a suffix other than -ing (784). Each of the other types appeared approximately equally (251, 237, and 222 times). The length of paragraphs and sentences varied so much that ratios are more significant than absolute numbers. The most significant column on the table 'Tabulations of Nominalizations in First Paragraphs' is the one next to the extreme right, labeled 'Change Noms. per Verb.' It reports how many nominalizations of the type that change verbs occurred per finite verb. Among the newspapers, those from the big cities in the United States showed the highest ratios, from .8 to 1.3. The only other publications with ratios above .7 were professional journals: Language at 1.0, the 'Compass' survey section of Science also at 1.0, and the technical reports in Science at .9. The news articles in Science had a much lower ratio of only .4, exactly the same as all three popular computer and mechanics magazines. In other words, all technology explained for

general audiences ranging from Science to Family PC had the same ratio of change nominalizations.

In between, all the professional composition journals, and only these, used .7 change nominalizations per verb. Next came Southwest Journal of Linguistics at .6 and then Modern Maturity at .5. Essence and the student compositions rated .3, while at the bottom were the two Cardiff women's magazines, both at .2. Even these lowest groups had consistently more nominalizations of all types than verbs; and they used at least one nominalization that changes verbs for every five actual verbs. Although one might expect variations depending on the exact content, these results of a very small sample were remarkably similar for groups. To reduce topical differences, all the newspapers for the United States had a similar date, when the big city news concerned a decision in the Paula Jones harassment lawsuit. In the smaller location of Texas City, however, a chemical spill made bigger local news. The three successive days of the New York Times were remarkably consistent in totals and types of nominalizations, while the types of articles in Science differed as anticipated. The student compositions were lowest except for the Cardiff freebies. Although during the semester the students were reading college texts with more nominalizations than they were accustomed to reading, the results from this small group showed no consistent trends in use of nominalizations. Even in their research papers, these students do not seem to need warnings against overuse of the nominalizations that all the periodicals use.

DISCUSSION: HOW NOMINALIZATION WORKS

Several questions arise.

One: If nominalizations are as deplorable as the handbooks claim, why are they ubiquitous, even in publications by the professionals who write the handbooks and presumably teach from them?

Two: Is the student ratio satisfactory, and if not, can and should anything be done about it?

Three: What is the role of nominalization in the plain English style that is decreed for explanations of federal services?

Four: How distinct are parts of speech?

In answer to the fourth question, the nouns identical with verbs are most common; they totaled 890, surpassing the 784 nominalizations that changed verbs. Bloomfield said that our system of parts of speech is an illusion (1939:3). That issue is too big to discuss here except to suggest that a functional approach would reduce the relevance of the question. Answers to the other questions depend on understanding how nominalization works.

Nominalizations occur more often in writing than in speaking and least often in non-standard varieties. Speakers act in real time, usually face-to-face, without the opportunity to combine their thoughts into generalities. Writing is slow and deliberate, a created object. While speech displays a vigorous style with verbs for sequence and addition, writing often presents a different logical structure of hierarchy and integration, which takes nouns. Historically, nominalization developed in Isaac Newton's writing as his text unfolded, reporting a process and then generalizing about it. Halliday has contrasted the style of Chaucer's technical treatises with Newton's newer method of explanation: first reporting how glass fractures and then how the fractures grow, until he can discuss the glass fracture growth rate (Halliday and Martin 1993:7-15).

Knowledge accumulates by building on previous information, compressed, organized, and packaged as a base. Scientists classify, define, and exemplify to construct new taxonomies, which are new knowledge (Halliday & Martin 1993: 233). Science and other forms of argumentation develop step by step, moving from what is established to what follows. They need to express a broad presuppositional base and abstractions with precision (Leckie-Tarrie 1995:118). If each step is reduced to an entity expressed by a noun, then a single clause can relate the steps without specifying again all the details of time and actor. Efficient sentences of this kind commonly begin with a heavily modified noun for the whole step, and then a verb relates it to another modified noun (Halliday and Martin 1993: 41).

Because the original users of nominalizations intended their meanings before coining them, their meanings are 'never simply additive' but are more specific and applicable to a narrower field (Bolinger 1968:55). Nominalizations referring to only a certain action (such as the -ing type of nominalization), and those referring to an actor, recipient, or resulting product are less evolved and less abstract than those that report the generalized or habitual process or

outcome. Nominalizations that serve as noun adjuncts can add a wide array of further information: operating principle, working substance, means of operation, characteristic working part, person who formulated the process, material used, purpose, location, professional role, shape or form, or parts in a relationship (Leckie-Tarrie 1995:119). On the other hand, nominalizations do not specify the processes, participants, circumstances, and relationships that clauses express. Since nominalization requires so much prior knowledge of the reader, educators dislike whatever is clear only if known (COIK). However, building on prior knowledge is exactly what researchers do and why they need nominalizations.

An index of the expected prior knowledge could correlate with the frequency of nominalizations. In professional journals, a rough index of that knowledge might be estimated from the number of references cited. Other publications may presuppose the knowledge of their steady readers without citations. Do the ratios of nominalizations correlate with the number of references? Nominalization ratios in the two linguistics journals, .6 and 1.0, do correlate with their great difference in number of references listed, 22 and 72 respectively. All three composition journals had a .7 ratio, with averages of 59, 45, and 33 references per article. The technical reports in Science had a ratio of .9 with an average of 42 references. The four short technical articles in the hybrid 'Compass' section of Science listed from 1 to 13 references, averaging 7, but the nominalization ratio there was high; one nominalization changed a verb for every actual finite verb. Except for some daily newspapers that assume steady readership, all the other publications examined had much lower nominalization ratios. This hypothesized correlation may be well supported with a larger sample.

Nominalizations have many effects:

1. Nominalizations developed historically to classify and interpret processes in physical and then social sciences. Instead of reflecting, describing, or corresponding to experience, scientific language interprets it to create theories, which consist of language that has evolved to interpret reality as persisting, still and unchanging, while it is being observed. As a nominalization, a process can have its own predication as well as modification by all sorts of adjectives, prepositional phrases, and adjuncts, including other nominalizations.

2. Nominalization constructs technical abstractions in humanities too. Both science and

humanities accumulate knowledge so that it can be built on. While scientists reconstruct the world as a place where things relate to things in new technical taxonomies, historians describe and classify to generalize and interpret the world from a nominal point of view (Halliday & Martin 1993: 220, 233). They can rearrange old knowledge in new ways to create or support their theories.

3. Nominalizations help to organize expository writing. Nominalizations can bypass the real-world sequence in favor of rhetorical organization of ideas, effects, explanations, and interpretations. They economically generalize in evaluations, introductions, classifications, summaries, and conclusions. Consequently, they apply to a large range of situations in administration and law.

4. However, English nominalizations involve contradictions: Their formation seems systematic, until their meaning changes unpredictably, often in a narrower context. (For example, the execution of prisoners is not the chief duty of most business executives.) Furthermore, choosing a particular word closes off other options. Nominalizations are generalities, and, as someone said, all generalities are false, including this one.

5. Nominalizations contribute to a nominal style, which may be the target of their opponents. Verb aggregation presents a strong vivacious style. Stories of action, news of events, and description of processes need verbs, but conclusions, classifications, and similar generalizations after deeper thought need efficient nouns, despite any difficulty they may cause. Narrative is inefficient for science when it must classify, decompose, measure, and explain.

Because nominalizations pack more lexical content into a single subject clause, which results in a greater capacity for elaboration, they increase the lexical density of the clause. This increase in the ratio of content words to grammatical terms in a sentence in turn increases the information content, even as it decreases the syntactic complexity. Sentences with nominalizations may be highly modified but have fewer and simpler clauses, although they may have a higher count of words, syllables, and letters (Leckie-Tarrie 1995:116-8).

6. Nominalizations cannot be challenged; they give an advantage to the writer but a disadvantage to the audience. When nominalizations turn processes into objects, nothing requires treating them objectively. They can be misleading, vacuous, and exclusive. They make

assumptions that increase difficulties in comprehension, and often they obscure or hide relevant information, de-emphasizing what is harmful to the position of the writer.

7. As single vocabulary items, nominalizations are stored in Long-Term Memory and therefore may get less attention and analysis.

8. Nominalizations allow the writer to avoid commitment to actor, modulation, and tense, and while all of the resources for modifying a nominal group are still available, what the modifiers refer to may not be clear.

9. Technical jargon creates a field. Unpacking it presupposes a knowledge of the field; explanations are 'clear only if known' (COIK). Consequently, nominalizations reveal the status, authority, maturity, group role, and other aspects of the writer's identity. One student told Ivanič that he preferred nominalizations because they hid his Irishness (1998:70). They mark prestige and power and distinguish the expert from the uninitiated. They also reflect assumptions about the audience. Heavy nominalization plays the role that Latin did earlier, indicating an esoteric point of view. It makes a text sound prestigious, abstract, formal, authoritative, and impersonal. It is elitist.

10. Nominalized wording becomes metaphorical, increasing comprehension difficulties (Halliday and Martin 1993: 82).

EDUCATION OF STUDENTS

Brevity is both advantageous and problematic. Nominalization leaves implicit the informational meanings that children most depend on (Halliday and Martin 1993: 41). However, unpacking nominalizations for young readers makes texts longer and more cumbersome, yet they still are not clear, because unpacking gives all details equal importance. The problems for the learner are 'partly a question of maturity: students well into secondary school may still find it difficult to comprehend ...' (Halliday and Martin 1993: 81-2). Nominalization develops in children at about age ten to fourteen; before then, they do not understand or use nominalizations of the change type. However, young children do hear and use verbs as nouns easily (MacNamara 1982: 116-140). They can learn and do not need to be talked down to. They can learn from definitions that list accumulated properties, but school science textbooks and pedagogy must

provide appropriate models (Halliday and Martin 1993: 189). When students are required to respond only with short answers, they do not think about relationships or learn there the style of the adult world.

BUSINESS, GOVERNMENT, AND BUREAUCRATIC USAGE

The prestige of science and consequently of its styles leads to overuse in bureaucracies, which in turn results in their jargon and gobbledegook. Bureaucrats may have reason to limit the amount of information they are revealing, and so they prefer a nominal style that does not require them to specify actors and times. They take the easy way out. Some lawmakers may believe that they are safer relying on traditional wordings or what they are familiar with. We all know the results.

But notice: the new government directive does not say anything about the wording of laws or regulations, only explanations of benefits and services. The primary readers are not other bureaucrats, but the possible recipients of the benefits and those responsible for delivering them. This directive concerns writing for specific audiences, as the popular magazines do. It means that the people who write these explanations must meet the needs of their audiences. This has always been good advice for anyone, including students. Beyond that, the problems of bureaucratic writing remain.

THE FUTURE

The best hope I can offer is what Halliday says about the real paradox of nominalization (Halliday and Martin 1993: 13-19). As processes become objects in a theory, their names as nouns imply stability. They imply precision within the context, even a temporary context. However, today's science accepts indeterminacy, probabilities, relativity, flux, and theories of 'fuzzy logic' and 'chaos.' Science understands the Heisenberg principle of not being able to observe something without changing it. However, nominalization does just that: it began by freezing reality for interpretation, but it has ended up constraining and losing much explicit information such as actor, time, circumstances, and especially probability, which is gaining in importance (Halliday & Martin 1993: 250-257). Even the government considers using statistical

sampling for the census count.

Theories are expressed in language. Scientists themselves value language, and some write in their journal Science about molecular communication and genetic transcription, yet many of them are not satisfied with their current scientific language practice that communicates more precision and stability than they intend (Halliday in Halliday and Martin 1993:82). What kind of language can they use? Physicists call subnuclear particles quarks, and their characteristics are beauty, charm, and strangeness. The director of the National Science Federation, Rita Colwell, began her term with five priorities, one of which is information technology beyond computer science (The Complex World 1998).

Halliday notes that the new technology of e-mail already blends spoken and written forms of language. He anticipates that in the information age of the next century there will be further development in the language of science as significant as Newton's use of nominalizations. It will parallel the four-century historical sequence of developments from physics to biology to sociology to communication, which was from, like, matter to, uhm, y'know, life to, like, value to, y'know what I'm sayin', like, information. He anticipates the next great developments in the sciences to involve the semiotic sciences. Although we cannot predict what corpus analysis or other new research may lead to, Halliday believes linguistics has a great future! (Halliday and Martin, 1993: 15-21).

Tabulation of Nominalizations in First Paragraphs

Publication, Date, Price, and Number of Articles	Sentences in First Paragraphs	Verbs	Nomina-lizations	Verbs with Noms. as Subject	Morphology: Like Verb	Morphology: -ING	Morphology: Change Verb	Morphology: From Adjec-tive	Morphology: From Noun(s)	Nominaliz-ations per Verb	% of Noms. that Change a Verb	Change Noms per Verb
NY Times, Average, $1, 7.7	9.3	21.7	37.3	9	12.3	7.3	16.3	3.3	3	1.7	43.7%	0.8
Times, London, 7/6, $.55, 6	7	12	30	5	12	2	6	7	3	2.5	20.0%	0.5
USA Today, 4/2, 4/3-5, $.50, 4	8	18	32	8	13	2	8	2	7	1.8	25.0%	0.4
Houston Chronicle, 4/2, $.50, 6	6	10	32	8	10	5	13	1	3	3.2	40.6%	1.3
Galveston Dy News, 4/2, $.50, 4	5	9	18	7	7	3	4	3	1	2.0	22.2%	0.4
Texas City Sun, 4/2, $.50, 5	9	10	18	4	10	0	6	1	1	1.8	33.3%	0.6
Chicago Sun Times, 4/2, $.50, 3	6	5	15	4	3	4	6	1	1	3.0	40.0%	1.2
SWJLinguistics, 1, $10, 6	36	67	130	35	48	19	37	19	7	1.9	28.5%	0.6
Language, March, $9.10, 4	17	33	85	16	31	3	34	10	7	2.6	40.0%	1.0
Science: Tech. Reports, 5/8, $7.18	117	193	440	108	128	29	178	47	58	2.3	40.5%	0.9
Science: Compass, 5/8, $7, 4	16	25	73	18	21	8	26	1	17	2.9	35.6%	1.0
Science: News, 5/8, $7, 17	64	125	176	68	76	18	55	13	14	1.4	31.3%	0.4
Written Commcs, April, $15, 4	19	46	78	31	22	12	31	10	3	1.7	39.7%	0.7
Res.Tchg.English, May, $6, 3	17	43	66	19	20	11	28	6	1	1.5	42.4%	0.7
Col Comp & Commc., May, $6, 4	25	55	108	28	29	28	39	10	2	2.0	36.1%	0.7
PC World, June, $5.99, 9	37	84	88	16	31	14	27	4	12	1.4	30.7%	0.4
Pop Mechanics, June, $2.95, 18	79	122	182	48	75	31	52	16	8	1.5	28.6%	0.4
Family PC, June, $$1.99, 9	28	66	87	23	35	10	28	5	9	1.3	32.2%	0.4
Mod. Maturity, Mar-Apr, $.40, 19	68	126	182	39	85	11	57	14	15	1.4	31.3%	0.5
Essence, June, $2.75, 8	100	89	109	22	46	5	28	16	14	1.2	25.7%	0.3
You & Yours, Sumr, $.60/Free, 4	14	31	46	12	29	1	6	7	3	1.5	13.0%	0.2
Women's Mag, Summer, Free, 20	41	67	74	11	35	11	11	9	8	1.1	14.9%	0.2
Student Writing, Spring, --, 15	100	187	203	52	87	17	55	25	19	1.1	27.1%	0.3
New York Times, 4/2, 6	8	18	39	7	15	1	15	4	4	2.2	38.5%	0.8
New York Times, 4/3, 8	10	25	42	7	13	6	19	2	2	1.7	45.2%	0.8
New York Times, 4/4, 9	10	22	31	13	9	0	15	4	3	1.4	48.4%	0.7

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